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Book review

Bad Pharma: how drug companies mislead doctors and harm patients

Ben Goldacre. Published by Fourth Estate, London, 2012. 364 pp, ISBN: 978-0-00-735074-2

Ben Goldacre's book, *Bad Pharma: how drug companies mislead doctors and harm patients*, is the latest of several books and articles in recent years to level criticisms at the way the pharma industry and regulatory authorities operate; criticisms that need to be taken seriously, revealing faults that need to be corrected. It makes uncomfortable reading. Goldacre chooses his targets well and shoots at them with well-documented examples, some of them truly shocking, many of them uncovered only after persistent and tenacious probing of reluctant sources. These are tales of secrecy, dishonesty, bribery and corruption that make for a compelling read, couched in prose reminiscent of scandalous revelations in the tabloid press. To the question of style, we will – as Goldacre himself so often says, to keep his readers hooked – come back later.

The main target in the Goldacre cross-hairs is nondisclosure of data, particularly data from clinical trials. It is well recognized that negative or unfavourable clinical trials results are much less likely to be published than positive findings. The blame lies not only with the pharmaceutical companies, but also with journal editors, who judge that reports showing no significant benefit of a treatment compared with placebo do not deserve journal space. It proves difficult even for regulatory authorities and official advisory bodies, such as the National Institute for Health and Clinical Excellence, to unearth unfavourable data from company-sponsored trials. Goldacre cites the example of the antidepressant reboxetine, on which only one trial was published, out of seven in which it was tested against placebo. The published trial showed it to be effective; the other six, on many more patients, remained unpublished. Other unpublished trials, in which it was compared to selective serotonin reuptake inhibitors, suggested, contrary to the conclusions of the few published trials, that it was less effective, and had worse adverse effects, than these drugs. This is the best chapter in the book and is forceful, well argued and backed by detailed examples.

Powerful voices, such as *BMJ*'s editor Fiona Godlee, are supporting the need for all trials data, not only collated and processed summaries, on currently used drugs to be available publicly, and it will surely not be long before this happens. GlaxoSmithKline has already signed up to it, so that is an important victory in sight. However, it must be remembered that the full patient data for even a modest trial run to thousands of printed pages. It will, of course, be in electronic format, but even so the task of editing out confidential patient data, collating and analysing it for only one drug will be substantial, and for the backlog of a thousand or so in the British National Formulary, which need to be reviewed, massive and very costly. As with any medical resource, the benefit will need to be balanced against the cost. Neither seems to have been determined.

The second main theme is criticism of the marketing culture of the pharmaceutical companies, its intrusion into medical education, its powerful influence on prescribing patterns, and the complicity of scientists, doctors and even regulators, in supporting it. It is a well-known, but still startling, fact that companies spend about twice as much on marketing as they do on research and development of new drugs. And much of what is done in the name of research is in fact undertaken for marketing purposes, though disguised as science. Although this will not surprise anyone familiar with the culture of the pharmaceutical industry, Goldacre does a skilled hatchet job, peppered with examples. Companies will, of course, defend their practices. Their priority, in a capitalist environment, is to sustain their businesses and provide shareholder value, which means making profits, which in turn depend on effective marketing. Profits also sustain drug discovery, and restricting the freedom of these behemoth companies risks, they can argue, throwing out the baby with the bathwater. But we do need a better assessment of how much real harm to patients is occurring, to balance against the likely future harm, through retarding drug discovery, contingent on wading in with further restrictions.

Goldacre emphasizes repeatedly the harm to patients resulting from the biased and incomplete reporting of trials data, and other failures of drug regulation and marketing, but only quantifies it rarely. Concerning the CAST antiarrythmic drug trial [1], which showed, contrary to expectations, that Class Ic drugs, such as encainide and flecainide, increased deaths following a heart attack, he says that 'well over 100 000 people died unnecessarily' after these drugs were used to prevent ventricular arrhythmias, which is a startling and dramatic assertion. Where does it come from? The only source for this estimate that I could discover is a 1995 book [2] by T. J. Moore entitled *Deadly Medicine*, where the estimate was between 6000 and 25 000 excess deaths per year. In a careful analysis,

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Anderson *et al*. [3] checked whether this claimed rise in coronary disease deaths associated with flecainide and encainide genuinely happened in the USA. It did not. The already declining cardiac death rate showed no deviation whatever from the prevailing trend during the period when these drugs were being prescribed in large amounts, though the excess claimed by Moore, even at the lower limit, would have been clearly significant; nor was there a dip in mortality when prescriptions fell by 75% after the CAST trial result was published.

A third theme, the shortcomings in the design and conduct of clinical trials, is also convincing and well researched, and his criticisms of pharmaceutical companies, regulatory authorities, ethical committees and journal editors, as well as participating clinicians and academics, will strike home. But the conventional double-blind randomized controlled trial, despite the shortcomings that Goldacre complains of in the design and analysis of many that are performed, has delivered a great deal of valuable information that benefits patients, and is rightly regarded as the best methodology when it is practicable. In devoting a whole chapter to a complementary approach – 'Larger, simpler trials' – Goldacre goes over the top. The idea is to use the electronic patient data records produced by general practitioners in their everyday practice to provide information on which of two or more treatments (on which there are currently no reliable data to guide clinicians on the best choice) works best. Large numbers of patients can quickly be recruited, and general practitioners only have to agree to randomize their treatment choice and log the patients' progress in the usual way. The potential value of this 'real world' pharmacoepidemiological approach is well recognized, but it faces serious ethical and operational obstacles, as well as limitations in the kinds of outcome measures that can be used. The problems are outlined in detail in a recent *BMJ* article [4] co-authored by Goldacre. Of these manifold problems, the book mentions only one rather obvious shortcoming, namely the unavoidable lack of 'blindness'. Devoting a whole chapter to enthusiastic endorsement of what is currently a plan in its infancy, and in no way a substitute for conventional trials, shows a lack of balance.

Overall, the book delivers an important and convincing message, which is well pulled together in the final chapter, amounting essentially a call to arms for many parts of the biomedical community. What lets it down badly is its style. Its excessive length and repetitiveness simply dilute the message. The numerous conversational asides to the reader are at best superfluous and condescending, and at worst coercive. For condescension, how about: 'I am very sorry if you have the flu, because it's hard being ill', or (referring to a diagram) 'So what's that on the right?', or – it is hard to know where to stop because the examples are so abundant – 'Don't worry if you don't understand everything, but here is one easy bit of background and one hard bit'. Does anyone find this cutesy drivel appealing? Why so often preface a statement with 'In case you are interested . . .' or 'If you were wondering . . .'? Telling us that a statistical argument 'makes my head hurt', then setting it out in detail, is simply conceit disguised as modesty. These examples may be dismissed as a stylistic quibbles, but frequent assertions along the lines of 'You will find the story I am about to tell truly shocking' are coercive, and intended to pre-empt the reader's independent judgement based on the evidence presented. An author confident of his case should expect his readers to arrive at the same conclusions without such prompting. In short, this is a book badly in need of a good editor.

Of more than stylistic concern is Goldacre's frequent recourse to the kind of journalistic hyperbole familiar from the red-top press. The first sentence in the book is exactly such a mindless attention grabber: 'Medicine is broken'. How can a practising doctor possibly make such an assertion? Little concern, evidently, for the harm to patients – his mantra throughout the book – that this foolish remark could cause if anyone believed it. The fact is that medicine is one of the most successful and valued enterprises in the civilised world and, as Goldacre himself acknowledges, it owes a great deal to medicines developed in the last few decades, despite the flaws in the process. A little further on, he speaks of 'a murderous disaster' resulting from these flaws. Does he really believe that murder, i.e. deliberate killing, has happened? Of course not, but in this forum, impact matters more than meaning.

This is a book with an important message that deserves to be taken seriously, despite the fact that its journalistic tricks and painfully beguiling style may cause many readers to throw it down in disgust.

Competing Interests

The author has completed the Unified Competing Interest form at http://www.icmje.org/coi_disclosure.pdf (available on request) and declares: no support from any organization for the submitted work; no financial relationships with any organizations that might have an interest in the submitted work in the previous 3 years; no other relationships or activities that could appear to have influenced the submitted work.

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